



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/986,529 | 11/09/2001 | Teruo Masuda | | 5759 |

7590 02/05/2003
LORUSSO & LOUD
3137 Mt. Vernon Avenue
Alexandria, VA 22305

EXAMINER

MULLINS, BURTON S

ART UNIT PAPER NUMBER

2834

DATE MAILED: 02/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,529

Applicant(s)

MASUDA, TERUO

Examiner

Burton S. Mullins

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, recitation "and a plurality of second grooves formed on a cylindrical outer surface..." is indefinite since it is not clear if the "cylindrical outer surface" refers to the right and left brackets or the stator core. Presumably, the second grooves are on the brackets.

Allowable Subject Matter

4. Claims 1-4 and 6 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action. Claim 5 is allowed.

Imaizumi is the closest prior art. Imaizumi teaches a motor comprising: a rotor having a rotor shaft projecting axially outward from opposite ends of said rotor (Figs.1,2&6); a stator having a stator core 11 consisting of a plurality of circular substrates arranged in layers (Fig.6), said stator core having a plurality of first grooves 13a formed on a cylindrical outer surface of said stator core (Figs.4-6) such that said first grooves are arranged at predetermined spacing along a circumferential direction and extend in an axial direction; right and left brackets 14/15 each assuming the form of a bottomed cylinder (Fig.6), each of said right and left brackets having a bearing portion at a bottom portion so as to support said rotor shaft (Fig.6), a plurality of engagement projections 15a formed at an axially inner end in such a manner as to project axially inward so as to be fitted into said first grooves (Fig.7).

Imaizumi does not teach "a plurality of second grooves formed on a cylindrical outer surface [of the brackets] such that said second grooves are arranged at predetermined spacing along the circumferential direction and extend in the axial direction and such that said second grooves formed on said right bracket are aligned with those formed on said left bracket; and a plurality of binders each having opposite ends bent so as to form engagement portions, said binders being fitted into said second grooves such that the engagement portions are engaged with axially outer ends of said right and left brackets to thereby clamp said stator core axially inward from opposite sides."

Art Unit: 2834

Hiratsuka teaches a motor including right and left cylindrical end brackets 2/3 and further including a mounting band 6 that attaches to grooves formed on the cylindrical outer surfaces of the brackets. The band clamps the stator core axially "inward" from opposite sides. However, the mounting band 6 does not constitute "a plurality of binders each having opposite ends bent so as to form engagement portions, said binders being fitted into said second grooves such that the engagement portions are engaged with axially outer ends of said right and left brackets."

Kyotani teaches metal fittings 1 bent in a key-shape and fitting into holes 8 and recessed parts 9 of the frame 6 and end brackets 7a/7b, respectively (Fig.2). However, in Kyotani the end brackets do not have grooves "formed on a cylindrical outer surface" of the brackets. Neither are the fittings "engaged with axially outer ends of said right and left brackets." Rather, each fitting engages a respective bracket and hole 8 in the cylindrical frame 6.


Similarly, with regard to claim 5, neither Imaizumi, Hiratsuka, Kyotani nor the remaining prior art teach, inter alia, plural dovetail grooves formed on a cylindrical outer surface of said stator core and a plurality of engagement projections formed at an axially inner ends of right and left end brackets in such a manner as to project axially inward so as to be fitted into the dovetail grooves, wherein opening edge portions of the dovetail grooves are caulked while said engagement projections are fitted into said dovetail grooves, so as to fix the engagement projections and said dovetail grooves to each other. Further, GB 2,061,775 to Lundin does not teach dovetail grooves in the stator core surface.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 305-7063. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 305-1341 for regular communications and 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.


Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
January 30, 2003